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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,756	02/05/2004	Nathaniel S. Fox	04017.00071	5695

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EXAMINER

MAYO, TARA L

ART UNIT PAPER NUMBER

3671

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,756

Applicant(s)

FOX ET AL.

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/05/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040614</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it contains the words "special" and "means" throughout. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1 through 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation “the mixture” in section (c) on line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation “the mechanical member” on line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the step of “removing the mechanical member” on lines 1 through 2. There is insufficient antecedent basis for this step in the claimed method because the step of inserting/positioning the mechanical member in the hollow tube apparatus is not previously recited.

With regard to claim 6, the scope of the claimed invention is indefinite because it is unclear if the step of “vibrating” is related or in addition to the step of “moving” as recited in claim 1. Claims 9 and 11 are similarly rejected.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1 through 3, 7, 9, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Frankignoul (U.S. Patent No. 1,764,948).

Frankignoul '948, as seen in Figures 1 through 8, discloses a method for installation of a pier in a soil matrix (page 1, line 19 through page 2, line 7) comprising, in combination, the steps of:

with regard to claim 1,

(a) positioning a hollow tube apparatus (a) having a longitudinal dimension and a lateral dimension in a soil matrix, said hollow tube apparatus including a hollow core and a lower end;

(b) inserting materials (c) into the hollow tube apparatus in the soil matrix;

(c) moving the hollow tube apparatus incrementally to simultaneously impart lateral forces on the materials within the hollow tube apparatus and longitudinal forces on the materials to thereby form a compacted lift as the hollow tube apparatus is removed in an incremental step from the soil matrix; and

(d) repeating steps (b) and (c);

with regard to claim 2,

wherein a mechanical member (d) is placed in the hollow tube apparatus, the mechanical member extending substantially the longitudinal length of the hollow tube apparatus;

with regard to claim 3,

further including the step of removing the mechanical member from the hollow tube apparatus;

with regard to claim 7,

wherein the hollow tube apparatus is cylindrical;

with regard to claim 9,

wherein the hollow tube apparatus is driven or pushed into the soil matrix;

with regard to claim 11,

including raising and lowering the hollow tube apparatus incrementally to impart forces on the soil matrix and aggregate; and

with regard to claim 12,

a pier formed by the process of claim 1 (as seen in Figure 8).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4, 5, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankignoul (U.S. Patent No. 1,764,948) in view of Horvath (U.S. Patent No. 4,657,441).

Frankignoul '948 further shows:

with regard to claim 8,

the hollow tube apparatus including a uniform diameter hollow core.

Frankignoul '948 discloses all of the steps and structural limitations of the claimed invention with the exception(s) of:

with regard to claim 4,

the hollow tube apparatus being formed with an inwardly beveled lower edge end;

with regard to claim 5,

the hollow tube apparatus including a mechanical portion with a lower peripheral surface defining an angle intermediate the longitudinal and lateral directions;

with regard to claim 8,

the hollow tube apparatus including a bottom mechanical device with an internal rim at the bottom of the hollow tube apparatus, the bottom mechanical device being beveled inwardly;
and

with regard to claim 10,

the hollow tube apparatus including a mechanical portion with a lower peripheral surface defining an angle intermediate the longitudinal and lateral directions.

Horvath '441, as seen in Figures 2 through 4, discloses a drilling device comprising:
with regard to claims 4 and 8,

a hollow tube apparatus (4) being formed with a mechanical device lower end (28) having an inwardly beveled lower edge (44) with an internal rim (46) for improving driving penetration through soil (col. 2, lines 39 through 42); and
with regard to claims 5 and 10,

a hollow tube apparatus (4) including a mechanical portion (28) with a lower peripheral surface (44) defining an angle intermediate the longitudinal and lateral directions (col. 6, lines 27 through 29).

With regard to claims 4, 5, 8, and 10, it would have been obvious to one having ordinary skill in the art of earth boring at the time of invention to modify the method disclosed by Frankignoul '948 such that the hollow tube apparatus would include a lower edge end/peripheral surface as taught to be advantageous by Horvath '441. The motivation would have been to reduce the effect of compressive forces on the soil as the hollow tube apparatus is being positioned.

10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frankignoul (U.S. Patent No. 1,764,948) in view of Farmer (U.S. Patent No. 4,165,198).

Frankignoul '948 discloses all of the steps of the claimed method with the exception(s) of:

with regard to claim 6,

further including the step of vibrating the hollow tube apparatus.

Farmer '198, as seen in Figures 1 through 7, discloses a method for installation of a pier comprising the steps of:

positioning a hollow tube apparatus (10) in a soil matrix;
inserting materials (16) into the hollow tube apparatus; and
vibrating the hollow tube apparatus (via element 20) to minimize the friction forces between the hollow tube apparatus and the inserted materials (col. 4, lines 47 through 57).

With regard to claim 6, it would have been obvious to one having ordinary skill in the art of foundations at the time of invention to modify the method disclosed by Frankignoul '948 such that it would further include the step of vibrating as taught by Farmer '198. The motivation would have been to facilitate removal of the inserted materials from the surrounding hollow tube apparatus as the hollow tube apparatus is moved.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438,

164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1 through 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 (and 18), 3 (and 19), 4, 12, 7 (and 20), 23, 26, 14 (and 27), 6, 7 (and 20), 1 (and 18), and 11 (and 24) of U.S. Patent No. 6,425,713. Although the conflicting claims are not identical, they are not patentably distinct from each other because the repetition of steps b and c, as required by claim 1 of the instant application, has no patentable significance because a new and/or unexpected result is not produced.

13. Claims 1 through 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 (and 16, 17, and 18), 2, 3, 4, 7 (and 13), 8, 9, 10, 12, 7 (and 13), 14, and 15 of U.S. Patent No. 6,688,815. Although the conflicting claims are not identical, they are not patentably distinct from each other because the

repetition of steps b and c, as required by claim 1 of the instant application, has no patentable significance because a new and/or unexpected result is not produced.

Comments

14. Applicant is advised to update the status of parent application 10/178,676 on page 2 of the Specification.

15. Applicant inadvertently submitted page 20 in duplicate. Because the claims presented on both pages are identical, the Examiner has disregarded the first of pages 20. Applicant is advised to correct the error in the response to this Office action.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TLM

05 August 2004


ROBERT E. PEZZUTO
PRIMARY EXAMINER